



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,238	06/07/2001	Kurt F. Becker	SIT-0107	8184
26259	7590	06/04/2003	EXAMINER	
LICATLA & TYRRELL P.C. 66 E. MAIN STREET MARLTON, NJ 08053			HARPER, HOLLY R	
		ART UNIT	PAPER NUMBER	
		2879		

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/876,238	BECKER ET AL.
	Examiner Holly R. Harper	Art Unit 2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 13 and 14 is/are allowed.
- 6) Claim(s) 1-12 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |                                                                                                |                                                                              |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                               | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____                                     |

**DETAILED ACTION**

***Response to Amendment***

1. The Amendment, filed on 3/18/2003, has been entered and acknowledged by the Examiner.

Claim 1 has been amended.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schoenbach et al. (USPN 6,072,273) hereinafter "Schoenbach."

In regard to claim 1, the Schoenbach reference discloses a fluorescent lamp comprising a sealed, light-transmissive tube containing a gas. First and second spaced-apart electrodes are mounted within the tube. The first electrode comprises a conductor having a plurality of micro hollows (Column 2, Line 66 – Column 3, Line 4). The lamp further includes electrical means for coupling electrical energy to the first and second electrodes (Column 3, Lines 6-8). The lamp also has a dielectric layer on the surface of each electrode. Each dielectric layer has openings aligned with the micro hollows (Column 3, Lines 23-25). In one embodiment, the lamp was

Art Unit: 2879

described as having a mica spacer that was .2 mm thick and the cathode holes had a diameter of .7 mm, which is an area of .38465mm<sup>2</sup> (Column 9, Lines 60-64). The Schoenbach reference does not disclose the thickness of the electrodes being between .05 mm and .5 mm. However, it is noted that having electrodes with the specified thickness is not shown to solve any problems or yield any unexpected results that are not within the scope of Schoenbach's light source. Accordingly, the specified thickness of the electrode is considered to be an obvious matter of design choice.

It is elementary that mere recitation of a newly discovered function or property, intrinsically possessed by things in the prior art, does not cause a claim drawn to distinguish over the prior art. Additionally, where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an intrinsic characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on. Thus, the functional limitation of the specified Lyman- $\alpha$  and Lyman- $\beta$  wavelengths is taught by Schoenbach under intrinsic functional principles. The Schoenbach reference discloses the specified pressure and gas mixtures. Therefore, the same Lyman- $\alpha$  and Lyman- $\beta$  emissions would be produced.

In regard to claim 2, the Schoenbach reference discloses that the discharge device contains a gas at a prescribed pressure that is typically in a range of about .1 torr to atmospheric pressure, which is about 760 torr (Column 5, Lines 30 –31).

In regard to claims 3 –5, the Schoenbach reference discloses that the gas in the discharge chamber is an inert gas such as argon, neon, or xenon (Column 7, Lines 50-51). Helium is also an inert gas.

In regard to claims 6-11, the Schoenbach reference discloses that molecular gases, such as nitrogen, oxygen or air, and sulfur or selenium vapors, and their mixtures with inert gases, maybe used in the flat light source (Column 17, Lines 10-12).

In regard to claim 12, the Schoenbach reference discloses a discharge device with an electrode having a plurality of micro hollows that emits radiation in a wavelength range of about 80 to 200 nanometers (Column 3, Lines 26-39).

***Allowable Subject Matter***

4. Claims 13 and 14 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 13, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 13, and specifically comprising the limitation of multiple microhollow cathode discharges and an anode comprising a distributed resistive ballast.

Regarding claim 14, claim 14 is allowable for the reasons given in claim 13 because of its dependency status from claim 13.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Response to Arguments***

7. Arguments are not found persuasive.

Regarding applicants claim that Schoenbach does not teach the added limitation of the specified Lyman- $\alpha$  and Lyman- $\beta$  emissions in claim 1, the Examiner respectfully disagrees. The Schoenbach reference discloses the specified structure, pressure, and gas. Therefore, the specified Lyman- $\alpha$  and Lyman- $\beta$  emissions would be emitted.

Regarding applicants claim that the scope and content of the present invention differ from Schoenbach's lamp, the Examiner respectfully disagrees. The Schoenbach reference has the structural limitations, specified pressure, and gas mixtures specified in the present application. With these limitations, the desired Lyman- $\alpha$  and Lyman- $\beta$  emissions can be emitted.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Harper whose telephone number is (703) 305-7908. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Holly Harper  
Patent Examiner  
Art Unit 2879

  
VIP PATEL  
PRIMARY EXAMINER